TROPHIES, TYPHON, AND TROLLEY PROBLEMS

Moral Play and Playing Well in Prey
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ABSTRACT

In this paper we examine the relationship between ethical gameplay and trophies in Arkane Studios' *Prey. Prey* is relevant in this respect because it uses trophies to incentivise players to reflect on the ethical dimensions of their in-game choices, engaging in what Sicart calls "reflective play" (2010, p. 6). We look at two of these trophies and the criteria for obtaining them, exploring how *Prey* uses these meta-game rewards to incentivise player engagement with the game's moral themes and dilemmas. This leads to an analysis of how trophies mediate the relationship between "playing well" and reflective play. The paper concludes with a more general discussion of trophies, how they are used in other games to facilitate reflective play, and some remarks regarding potential future research.

INTRODUCTION

What is Prey?

Developed by Arkane Studios and published by Bethesda Softworks, *Prey* is a 2017 sci-fi game set in an alternate near-future timeline in which humanity has made contact with a hostile alien species, the Typhon. The player takes on the role

of Morgan Yu, a research scientist employed by the TranStar corporation to develop "neuromods" – neurological augmentations that grant the user incredible skills and abilities. After a brief introductory sequence and tutorial, it is revealed that Morgan (who can be male or female) is aboard Talos 1, a vast TranStar space station almost completely overrun by Typhon. From this point, gameplay consists primarily of navigating the station and its various sub-sections, avoiding or fighting Typhon, collecting resources, and gaining new abilities with neuromods, all of which is framed by an evolving story that culminates in the player deciding the ultimate fate of Talos 1 and everyone on board.

Prey is an immersive sim, a "particular flavour of first-person shooter RPG hybrid" that combines "the depth of Dwarf Fortress and the immediacy and spatial habitation of Wolfenstein" (Wilson, 2019). While immersive sims have existed for more than three decades, with the first example generally considered to be Ultima Underworld: The Stygian Abyss, there is little academic and critical consensus regarding the genre's main characteristics – or even if it's a genre at all. For our purposes, we may draw from Wilson's definition and say that immersive sims combine deep systemic gameplay with richly realised narratives and settings where player expressivity and experimentation are paramount.

What is reflective play?

In a series of articles and books, games scholar Miguel Sicart (2010; 2011; 2013) outlines an approach to designing "ethical gameplay" derived in part from the 'Levels of Abstraction' concept within information ethics. He proposes that players interact with video games at two levels of abstraction: as procedural/mechanical systems to be mastered, and as semantic objects with cultural and ethical meaning. In the grim wartime survival simulator *This War of Mine*, the game's procedural rules and objectives compel the player to make choices whose

semantic, cultural meanings clash with commonly held real-world values. Caving in an old lady's head with a shovel to pilfer a tin of peaches makes us uncomfortable: there is dissonance between the game's procedural goals and their broader ethical and cultural implications, resulting in what Sicart calls ethical cognitive friction – a "contradiction between what to do in terms of gameplay, and the meaning and impact of those actions, both within the gameworld and in a larger cultural setting" (2010, pp. 6–7). The key to designing ethical gameplay, Sicart argues, is to focus on this dissonance, to provoke and exploit it and thereby compel the player to consider the moral significance of the game's procedural and semantic layers.

Crucially, Sicart recognizes that ethical cognitive friction is contingent on a player motivated to think about the moral significance of their in-game choices. Even the most morally sophisticated game can be played instrumentally, as a series of ludic challenges devoid of ethical resonance. Sicart calls this kind of play 'reactive' and contrasts it with the 'reflective' play of someone who actively thinks about their choices and perceives dissonance when it appears (2010, pp. 6-8). One of the defining goals of designing ethical gameplay is to encourage players to adopt a reflective stance - to promote what we refer to in this article as "reflective play". A reflective player is one who considers the moral significance of their in-game choices, who does not approach gameplay from a purely instrumental perspective but attempts to understand the rules assumptions that constitute a game's ethical framework. Reflective players are not necessarily good in the sense of playing morally virtuous characters and making sound moral decisions: it's entirely possible, and sometimes quite valuable, to play evil reflectively.

The relationship between playing reflectively and playing well – in the sense of playing to obtain or maximise ludic rewards – is complex and somewhat fraught. Rewards for skilful play

are implicit evaluations: pats on the head from the omniscient, immutable designer telling you that you have done a good thing. When these same rewards are tied to moral choices in the form of "computable morality systems" like karma meters (ibid.) they act as an implicit evaluation of those choices and eliminate ethical cognitive friction by taking the player's responsibility for evaluating their own actions away from them. This diminishes any incentive to reflect on the moral dimensions of one's choices, saying in no uncertain terms that morality is governed by the same amoral ludic logic that determines, for example, whether the player has enough experience points to level up.

Trophies and other meta-game rewards can help ease this tension, incentivising reflective play by giving players a variety of long and short-term moral goals that require skill and perseverance to accomplish. Implementing trophies well is difficult and requires a great deal of skill and attention to detail, particularly with respect to how trophies interact with and contextualise the game's semantic and procedural layers. We believe the trophies in *Prey* are an instructive example and so it is to them our analysis now turns.

TROPHIES AND REFLECTIVE PLAY IN PREY

What are trophies?

Trophies are pieces of digital content that are used as rewards on Sony's PlayStation Network (PSN). They were first introduced for the PlayStation 3 console on Sony's official PlayStation Blog in June 2008 as a part of the PS3 Firmware v2.40 update (Firmware, 2008). The first game to feature trophy support was *Super Stardust HD* (Wood, 2008). At first, trophies were not part of every game released for the console but, by January 1, 2009, trophy integration became a mandatory part of Sony's verification and certification process to publish games on the PlayStation 3 console (Bramwell, 2009). In the period since then,

trophies have continued to be a part of games published for Sony consoles including the PlayStation 4, PlayStation Vita, and PlayStation 5. It should be noted that Sony's trophy system is not unique in the industry as it was predated by Microsoft's Achievement system for its Xbox line of products and has other equivalents such as Badges on Valve's Steam platform. In this paper we refer exclusively to trophies, but our analysis is equally applicable to equivalent digital reward systems.

Within the field of game studies, there has been little published research into trophies or equivalent digital reward systems. Lu et al (2020) analyzed Reddit posts centered on trophies and achievements using a data-driven approach to determine player interests and attitudes towards these reward systems. Stein (2020) studied the trophies in The Last of Us Part II as player motivators designed by developers to "move" the player through the game while also arguing that trophies in general are digital rewards steeped in traditional masculine gamer cultures based on mastery and achievement. Scheiding (2020) incorporates "trophy hunting" playthroughs (i.e., playing through a game with the goal of unlocking every available trophy) as part of his methodology for analyzing games. The small amount of work on trophies and other reward systems leaves a sizable research gap and allows for the further study of trophies, their connection to gameplay, their design, and their overall meaning within player communities.

Trophies in Prey

There are 49 trophies for the player to collect (38 Bronze, 6 Silver, 3 Gold, 1 Platinum) in *Prey*, encompassing a range of goals and challenges. Many of the trophies are connected to different types of playthroughs with specific goals such as "No Kill" runs where the player attempts to play the game without killing or "Typhon powers only" runs where the player attempts to finish the game using only Typhon derived neuromods. Other trophies

are connected to utilizing powers in specific ways such as the "Deprogramming" trophy which is unlocked when the player uses the Mindjack power to free a mind-controlled human. Finally, there are some trophies that are more comical as they require the player to perform actions that they normally would not. For example, the trophy "No Show" requires the player to kill Morgan by jumping into the blades of the helicopter that drops them off at the beginning of the game (hence making them a "no show" for work that morning).

It is beyond the scope of this study to examine what the significance of the trophies are for each player, or what the specific intentions were for the developers, but it is possible to surmise based on what is generally known about players, developers, and trophies. From a player perspective, the trophies offer additional challenges, an opportunity to earn digital rewards (i.e., the trophies themselves), the ability to show their prowess playing the game, or a set of goals that will allow them to experience all the content the game has to offer. In other words, the trophies offer some kind of value connected to common gaming and player practices.

From a developer perspective, trophies indicate a desire to guide player behaviour by incentivising fun, interesting, or especially challenging ways to play. However, trophies provide additional reasons for the player to continue engaging with the game and help in audience retention which is essential to game developers and publishers. This is especially the case when future content or DLC is planned. This was true for *Prey* which received paid DLC expansions, *Mooncrash* and *Typhon Hunter*, approximately one year after the initial release. Finally, it would be remiss not to mention that trophies are not only required to be in games by Sony but, even if they were not, they are expected by gaming audiences. In summary, then, trophies offer developers a way of encouraging players to play in certain ways and to play longer while also meeting player and business expectations.

Trophy 1: Do No Harm

The "Do No Harm" trophy requires the player to play through the entirety of the game without killing a single human NPC. For the purposes of this trophy the player is credited with a "kill" only if they deal the killing blow to a human NPC. So, for example, if an NPC is killed in the blast radius of a player's weapon (such as a recycler charge) the player will be credited with a kill. However, if a player baits an NPC into running into a deadly obstacle (such as a fire) they will not be credited with a kill. The player also cannot take actions during side quests that result in the deaths of human NPCs. For example, at one point the player is faced with a choice regarding an escape pod that has become jammed in its exit tube. If they decide to launch the escape pod before clearing away debris outside of Talos I, the NPCs inside will be killed, and the player will be credited with two "kills" (one for each NPC in the escape pod).

The primary challenge for this trophy is to be careful in combat and to make sure that no humans are the victims of splash damage or careless small arms fire. In addition, the player also must be careful to not make decisions during side quests that will lead to the deaths of human NPCs. Despite the seeming simplicity of this requirement the trophy has only a 6.0% completion rate, most likely because some fights (especially those against Telepath enemies that have mind-controlled humans) are much easier when human NPCs can be quickly dispatched or because players accidently are credited with a "kill" and are unaware. In terms of strategies for the trophy, the player simply needs to make frequent saves or quick saves before and after encounters, making sure that they have not been credited with a "kill".

Trophy 2: I and It

The "I and It" trophy requires the player to kill every Human NPC in the game with the official PSN trophy description

reading, "You killed every Human on or around Talos I". However, this description is somewhat misleading because one prominent NPC in the story, Danielle Sho, cannot be killed by the player and, therefore, is not included as a part of the trophy (despite the wording of the trophy making it seem like she would need to be killed by the player as well). The stipulation for what counts as a "kill" are the same as those outlined for the "Do No Harm" trophy. This means that, if the player wants to unlock the trophy, they must land the killing blows on a human NPC rather than simply making sure that all human NPCs are dead. In other words, the player must not only make sure that all human NPCs die, but they must also make sure that the human NPCs die by their direct action.

Unlocking the "I and It" trophy is exceedingly difficult to achieve, as evidenced by its 0.8% unlock rate on PSN. The challenge of the trophy comes from the fact that the player must make sure that they land killing blows and hope that the often chaotic, systemic nature of the game does not affect their ability to do so. For example, it is possible to spawn into an area that is supposed to have living human NPCs only to find that they have accidently killed themselves. The difficulty is compounded by the fact that the player must use advanced strategies in particular fights to ensure that they land the necessary killing blows. For example, the player must use a GLOO cannon to scale the side of a greenhouse and dispatch a Telepath quickly and efficiently to prevent the enemy from executing three human NPCs. If the player is not aware of this enemy's location or this advanced strategy, they are very unlikely to be able to land the necessary killing blows. Indeed, under normal circumstances the player may not even attempt to play the game in this way because it involves the use of an excessive number of resources only to achieve the same result (i.e., the defeat of the Telepath and access to the greenhouse).

Given the difficulty of this trophy advanced strategies and are required by the player. The planning PlayStationTrophies offers a 22-point guide that includes a YouTube video link. The official strategy guide offers a more concise 13-point guide for the "Awkward Ride Home" trophy that can be easily adapted to also unlock "I and It" with some clever manipulation of the save system (Knight, 2017). Thus, completion of the trophy requires both skill at playing the game along with a deep knowledge of its systems as well as the specific locations of human NPCs and enemies. Even with these and the help of the above-listed guides, players will find that they may need to create a checklist of human NPCs that must be killed and abuse the save system before and after every fight in the game to make doubly sure that they are being credited with a "kill" when a human NPC dies. Only then will they be able to unlock this "Ultra Rare" trophy.

Pacifism, genocide, and other "moral trophies"

This paper focuses solely on Prey and its use of trophies to structure moral play, but *Prey* is not the first game to use trophies in the ways we describe. Dating back to Doom, when speedrunners began competing to complete the game as quickly as possible without killing any monsters, players have pursued so-called "pacifist runs" across a diversity of games and genres (Budac 2021, p. 20). Unlike real pacifism, which abhors all kinds of violence, pacifist runs in video games typically refer to completing a game without directly killing an NPC (Pacifist Run, n.d.). As this practice became more widespread, developers began to incentivise it, first with in-game challenges and rewards (like in Thief: The Dark Project) and then, increasingly, with trophies (Budac 2021, p.70). Trophies that encourage some variation of the pacifist run are now relatively commonplace, appearing in games like Cuphead, Deus Ex: Human Revolution, Arkane's own Dishonored series, and, of course, Prey.

The dark mirror of the pacifist run is the ominously named "genocide run" in which the goal is to kill everything that can be killed, hostile or otherwise, or to kill every major NPC. Like the pacifist run, the genocide run can only exist in games where doing otherwise is an option. It is meaningless, for example, to talk about doing a "genocide run" of the classic top-down shooter Galaga because killing every single alien is necessary to complete the game. Trophies like "I and It" that incentivise genocide runs are less common than their peaceful counterparts, perhaps because wanton slaughter is so common in games that it does not warrant special recognition. That said, trophies are commonly used to reward specific instances of morally heinous behaviour. One noteworthy example is the "Dastardly" trophy in Red Dead Redemption, which incentivises players to hogtie a woman, leave her on a train track, and watch as she's killed by a speeding locomotive. Another example is the "Wait, Don't Kill Me!" trophy from Nier: Automata, which is awarded for killing ten "friendly machine lifeforms" - an act made particularly poignant by the adorable, almost childlike nature of the machines in question.

Featuring trophies for both pacifist and genocide runs, *Prey* continues the "moral trophy" tradition but does so in a way that plays with the "magic circle" of the game itself, making for a unique experience that we believe highlights exciting possibilities for the design of games intended to promote reflective play.

Analysis

In this section we examine how the trophies Do No Harm and I and It frame *Prey*'s moral gameplay. *Prey* is somewhat unique in that the entire game is framed as a kind of ethical thought experiment – an "immersive trolley problem" as Arkane designer Rich Wilson puts it (2019). How do trophies that explicitly

incentivise (im)moral goals fit into this experiment and *Prey*'s immersive sim design philosophy?

Looking at the criteria for obtaining trophies and the tactics for meeting those criteria, it is clear that obtaining either trophy is a complex, multi-step process involving many small but significant actions over the course of the game. There are many opportunities to fail and not all of them are obvious. Perseverance and adaptability are mandatory – even for players using a strategy guide. This kind of long-term commitment is not unusual for difficult to obtain trophies, especially coveted platinums, but is rarely required of players pursuing moral objectives. Moral content in narrative-driven video games often consists of "one and done" decisions occasioning immediate, unambiguous consequences. The "Last-Second Ending" trope – in which a "single choice made by the player determines the ending that they get, irrespective of ... prior choices" (Last Second Ending Choice, 2022) – is a popular format for this kind of content and can be found in games as old as The Bard's Tale (1985) and as recent as Shin Megami Tensei V (2021).

The opposite of the Last-Second Ending choice is what Sicart calls the "aggregation of choices" (2013, p. 105). Instead of being limited to a few big, heavily signposted decisions, moral play is expressed in a multitude of small and large choices whose significance accumulates over the course of the game. One of the chief virtues of the aggregate approach is that it shifts the player's focus from outcomes to decisions, representing morality as more than big problems waiting for optimal solutions, but as an expression of one's identity – as something that one does, day-to-day, in a multitude of tiny but important ways.

In *Prey* the aggregate significance of the player's choices becomes clear in the ending cutscene when it's revealed that the game's events are part of a virtual reality simulation – an experiment – designed to cultivate empathy in a hostile alien species, of which

the player character is part. Again and again the game asks, in a variety of obvious and not-so-obvious ways: "How empathetic are you? How far would you go to help people in distress?" How the player responds to these questions in aggregate determines the result of the experiment and, by extension, whether or not the player character is killed (or "discarded" in the experimenter's sterile vernacular) before the credits roll.

Trophies add another layer of context, reframing aggregate choices as progress toward obtaining a meta-game reward. For the reactive player uninterested in participating in the game's moral fiction, this does not change much. If NPCs are morally inert automatons that exist to facilitate the player's goals, then the choice between saving and killing them *en masse* is purely instrumental. For a reflective player, especially one who is aware of the game's meta-fictional conceit, the issue is somewhat more complicated.

As we saw in the previous section, obtaining the I and It trophy means killing every (still living) human inhabitant of Talos 1 – 42 people in total. Significantly, pursuing this trophy means getting up close and personal with the very people you need to kill. Mechanisms that might help a guilty trophy hunter salve their conscience - like letting NPCs fall victim to "accidents" - are invalid: the killing blow must always be delivered by the player. For a reflective player this is further complicated by the fact that Arkane has taken special care to humanise the vast majority of Prey's NPCs. Not only does every person aboard Talos 1 have a name and job, but many have intricate personal histories that players can piece together from emails and audio logs found all over the station. It is one thing to kill hordes of nameless guntoting goons for a trophy; beating your paraplexic ex-girlfriend to death with a wrench for the same reason is quite another. The trophy therefore acts as a source of ethical cognitive friction: for a player who sees the people of Talos 1 as more than game pieces, I and It is a grim temptation reinforcing the game's thematic

concern with means vs ends moral reasoning. "Just how badly do you want that trophy?" the game seems to ask.

The Do No Harm trophy serves a different function, testing the player's moral resolve as they struggle to complete the difficult tasks needed to keep the people of Talos 1 alive. In so doing, it illustrates once again the value of the aggregate approach to designing moral content. One of the major drawbacks of the "one and done" format discussed earlier is that it involves little in the way of commitment from the player: the decision is presented, made, and resolved in a single conversation. But for real moral exemplars, for the people who actually go out of their way to help others and make the world a better place, morality is a way of life embedded in hundreds of little decisions made on a day-to-day basis (Colby & Damon, 2015). It is about commitment and selfawareness. It is saying to yourself "This is what matters to me" and consistently following through on those values. Prey's Do No Harm trophy incentivises, in microcosm, the kind of moral commitment that real moral exemplars practice: the kind that is hard, that takes time, and that typically involves a lot of failure and repetition.

Or at least that may be the case for a first-time player, unaware of the game's meta-fictional conceit. But what does it mean to kill or save everyone on Talos 1 when you know that the whole thing is, in the game's fiction, a simulation? Part of playing reflectively is buying into the narrative and trying to engage with moral scenarios in ways consistent with your values or the values of the character you are playing. For a second time player who has seen and understood the ending, buying into *Prey*'s fiction means buying into the conceit that everything the player does during the game is part of a simulated experiment. The people of Talos 1 are not even fictionally real; they are variables, data to be preserved or erased as the test dictates.

For a returning player, Do No Harm and – especially – I and It reinforce this conceit, prompting an interesting mix of reflective and reactive play in which the player can treat moral scenarios instrumentally, but in a self-aware way that is consistent with the game's narrative and does not provoke ethical cognitive friction. In revealing that the events of the game are simulated, Arkane effectively gives the reflective player permission to experiment – friction free – with the game's ethical scenarios, with trophies providing a roadmap for obtaining meaningful results.

To summarise, trophies that appear to incentivise a reactive, morally indifferent playstyle in which human NPCs are reduced to checkboxes on a to-do list are recontextualised by the game's design and fiction to draw attention to their moral significance. First time players pursuing the I and It trophy will find that their grim task is made ever grimmer by the hard-to-miss humanity of Talos 1's inhabitants, a humanity that resists reduction to ludic arithmetic. The same first time player pursuing the Do No Harm trophy will discover that deciding to do a good deed is just the beginning: that being "good" is a matter of commitment and focus, about many decisions made consistently in the face of adversity. For returning players, the trophies take on a new meaning, slotting neatly into the game's "ethics experiment" meta-fiction and incentivising players to treat Talos 1 like the big, simulated sandbox it turns out to be. In all cases, we see that playing *Prey* well by obtaining trophies is harmonious with playing Prey reflectively.

To be clear, we are not claiming that anyone who tries obtaining the trophies we have discussed will necessarily engage in reflective play and think about the moral ramifications of their actions as they pertain to the "real" and "simulated" narrative realities in *Prey*. We are interested in methods and design patterns (Björk & Holopainen, 2006) for incentivising reflective play, in giving players good reasons to think about the moral implications of their choices – this is what *Prey* does so well. This

is a difficult design problem, not least of all because the same mechanisms games usually use to incentivise player behaviour – e.g., rewards in the form of new powers or content – focus the player's attention on ludic, rather than moral, outcomes. *Prey* subverts this tendency, first by using meta-game rewards to incentivise player engagement with the game's moral themes and dilemmas, and second by using a meta-fictional conceit – the "experiment" – to reduce the delta that usually separates playing well, in the ludic "get all the trophies" sense, and playing reflectively.

From this, we conclude that meta-game rewards like trophies possess a great deal of untapped potential when it comes to designing and incentivising ethical gameplay. If Prey is any indication, the key to doing this well is to be aware of how the game's content contextualises trophy criteria, and how those same criteria direct the player's attention to morally significant actions and scenarios. This last point is important and more complex than it initially appears. One of the great challenges of moral life is learning to "see" morality in everyday scenarios and choices, to recognise moral problems as moral problems (Narvaez, 2010). Getting players to "see" morality in game systems and narrative is similarly challenging, and trophies offer relatively straightforward and unobtrusive means of addressing that challenge. This involves more than just rewarding players for choosing the good or bad option in a dialogue tree: as Prey demonstrates, trophies are a way of stealthily problematising or promoting morally relevant mechanics, strategies, and tactics and encouraging players to think about morality throughout the entire game.

CONCLUSION AND DIRECTIONS FOR FUTURE SCHOLARSHIP

Trophies are an underexplored topic within the game studies literature and there is much potential for future research in this

area. In particular we feel there is a great deal to learn from conducting player studies on so-called trophy hunters - player communities dedicated to obtaining trophies and developing optimised strategies for doing so. What is it about trophies that motivates players to pursue them with such dedication? Here, Consalvo's (2009) concept of "gaming capital" may prove to be particularly informative: if acquiring trophies confers gaming capital, how do the criteria of specific trophies impact that relationship? Are trophies in harder games or games in historically "hardcore" genres like military shooters seen as more desirable than trophies from casual games? In certain games, such as the aforementioned Nier: Automata, it's possible to "purchase" trophies via in-game shops, a practice dismissed as illegitimate by certain trophy hunting guides. What other mechanics or genre tropes might delegitimise a trophy in this way?

With respect to the relationship between reflective play and trophies, there is much work to be done. At this stage, our work is purely theoretical: we have good reasons to hypothesise that trophies can be used to successfully incentivise reflective play, and now the next step is to test our hypotheses and examine actual player behaviour. The questions we are interested in answering encompass the impact trophies have on player awareness of moral content: for example, do players who obtain morally oriented trophies pay more attention to a game's moral content, or do trophies act like other ludic rewards encourage a reactive mindset? How do narrative, presentation, mechanics, and the broader culture around trophies contribute to this?

Moving beyond trophies, metagame mechanisms more broadly present another underexplored but potentially valuable avenue for provoking reflective, morally engaged play. The popular indie RPG *Undertale* is particularly instructive in this respect, using metagame elements like the player's save file and playstyle – exemplified by pacifist and genocide runs – to playfully poke

holes in the magic circle and draw attention to the moral significance of the player's actions (Budac, 2021). One of the more poignant examples of this occurs upon restarting the game after successfully completing a genocide run. Instead of getting the usual title screen, the player is greeted with a black void and the sound of howling wind. Pressing buttons does nothing and for all intents and purposes it seems like the game is now unplayable. After ten real-time minutes elapse, a text box finally appears, addressing the player directly:

Interesting. You want to go back. You want to go back to the world you destroyed. It was you who pushed everything to its edge. It was you who led the world to its destruction. But you cannot accept it. You think you are above consequences.

The player is then given an option: they can leave the game in an unplayable state, or exchange their "SOUL" to start anew. Significantly, choosing the latter option does not result in a completely clean slate. The game "remembers" that the player has completed a genocide run, making it impossible to ever complete the "True Pacifist Route" and obtain what fans consider the game's "true ending" (True Pacifist Route, n.d.). As such, if the player completes a pacifist run first and follows it with a genocide run, there is no going back to the true pacifist ending. As Budac (2021, p. 133) points out, the upshot of this is that players must "leave an entire route of the game unplayed" (or fiddle with configuration files) if they want the best ending to "stay" in the game's meta-fiction. In other words, not playing the genocide route is a sacrifice the player must make for the greater good.

Undertale is not the first or only game to play with metafunctionality in this way. The 2009 Flash game *Execution* uses permanent save files to "remember" the player's actions, while players who want to obtain the "true ending" in *Nier: Automata* may be asked to delete their save, which by that point could easily approach 100 hours of total play time. What these, *Undertale*, and *Prey* have in common is their commitment to using the player's awareness that they are playing a game to undermine or problematise unreflective, instrumental play. By puncturing the magic circle and incorporating metagame mechanisms and playstyles into the fiction and world of the game itself, these games imbue Sicart's "procedural layer" with semantic, moral meaning – ultimately making it harder for the reactive to *remain* reactive.

The question now becomes: how do we push this further in a way that does not frustrate players, undermine their willingness to engage in the game's moral fiction, or make them feel as though they have been ripped off? The willingness to make meaningful sacrifice, like deleting a save file or not replaying a game in a certain way, is a core value in most moral traditions, but perhaps it is unreasonable (or even unethical) to expect players to give up access to content and rewards in a product they have paid good money for. As Zagal, Björk, and Lewis (2013) ask: where is the line between psychological manipulation and good game design? Would it be manipulative, for example, to give players the option to "save" Final Fantasy VII's Aerith from dying by permanently deleting their save at the end of the game or by forgoing access to a platinum trophy? For certain platforms, like Xbox Live, the latter option is not even possible since their regulations forbid developers from making trophies inaccessible (Xbox Live Polices for PC and Mobile, 2022).

What all this points to is that, while it is clear that there is a great deal of potential inherent in using metagame mechanisms to promote morally reflective play, the actual design and implementation of these mechanisms is far from straightforward and ironically fraught with potential ethical and regulatory pitfalls. Nevertheless, we look forward to unravelling these issues as we continue to explore this fascinating and thus far underexplored strand of games scholarship.

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